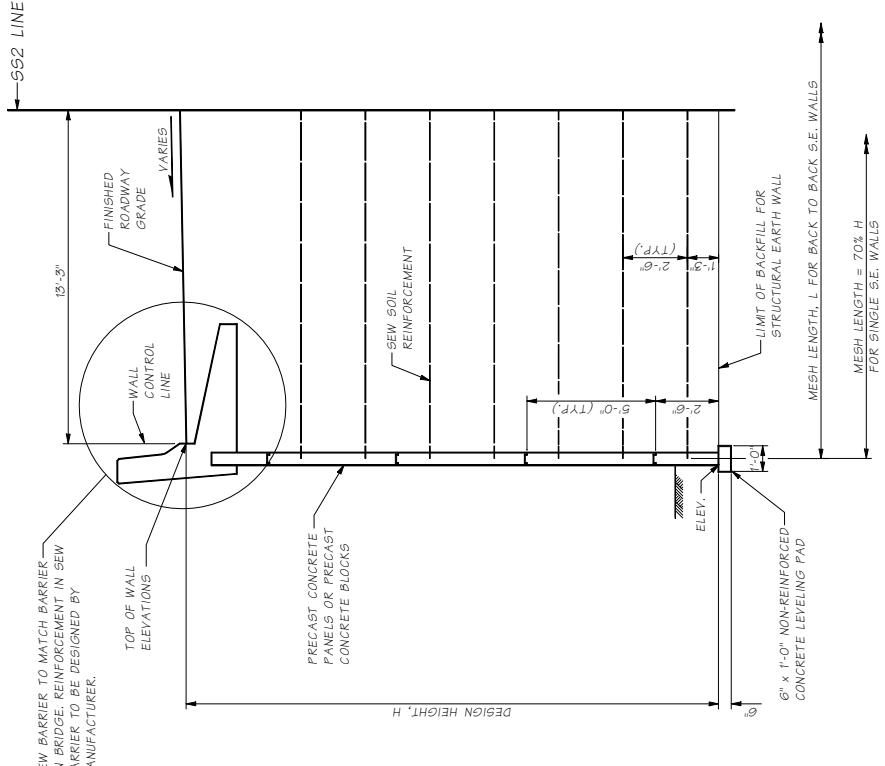


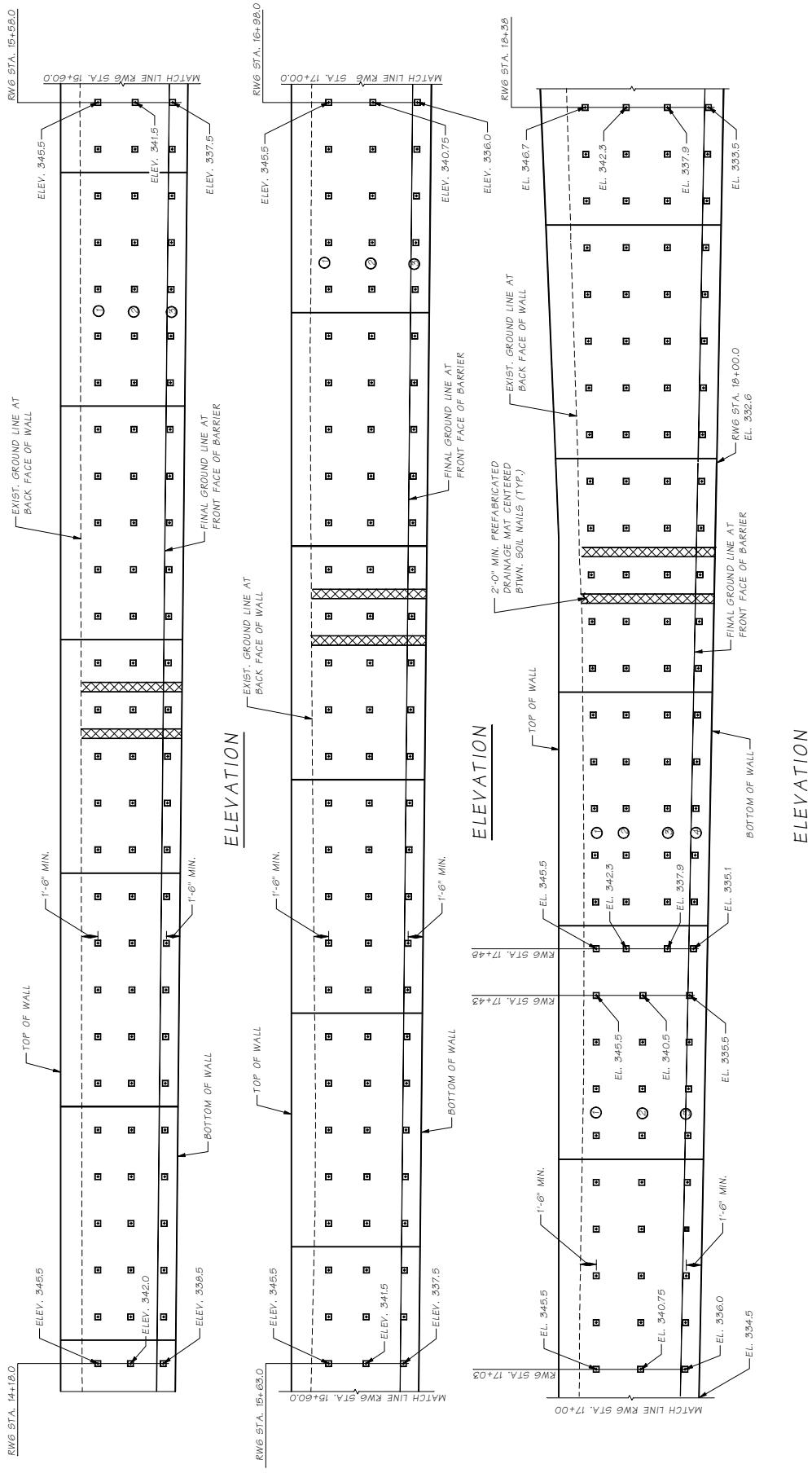
## **SEW Wall Elevation**

*Figure 8-A-1*



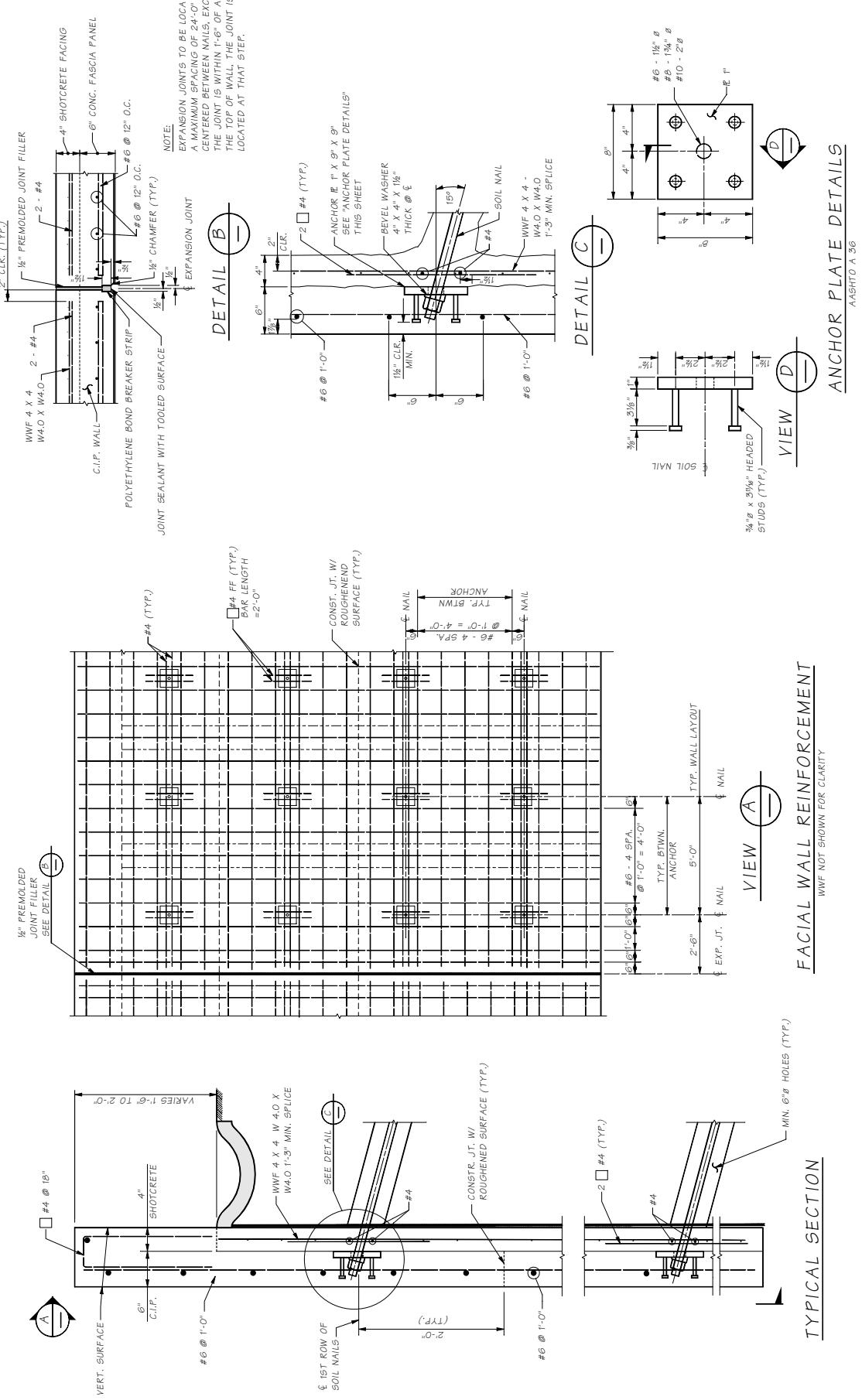
TYPICAL CROSS SECTION

**SEW Wall Section**  
*Figure 8-A-2*



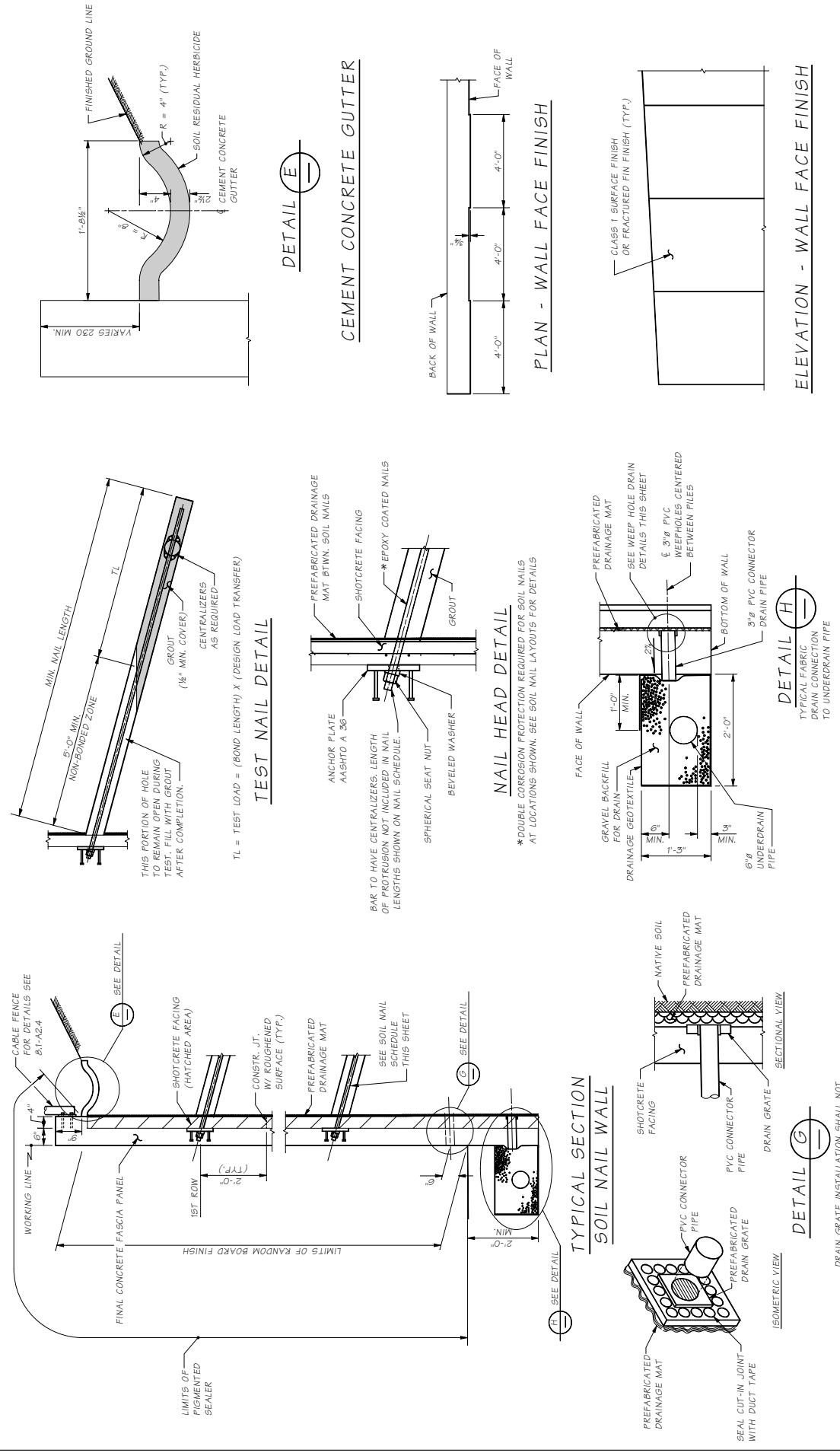
## **Soil Nail Layout**

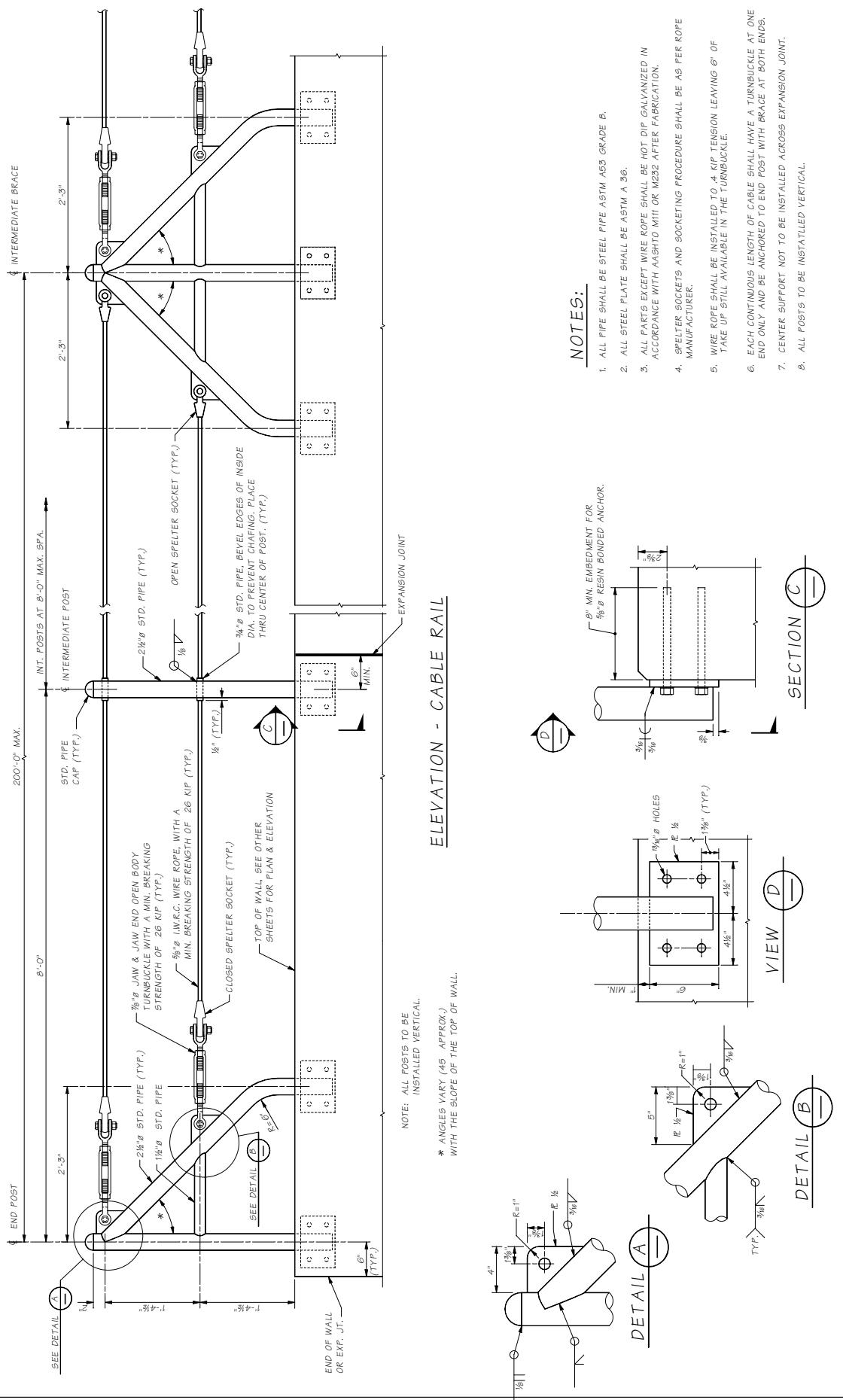
*Figure 8-A-3*



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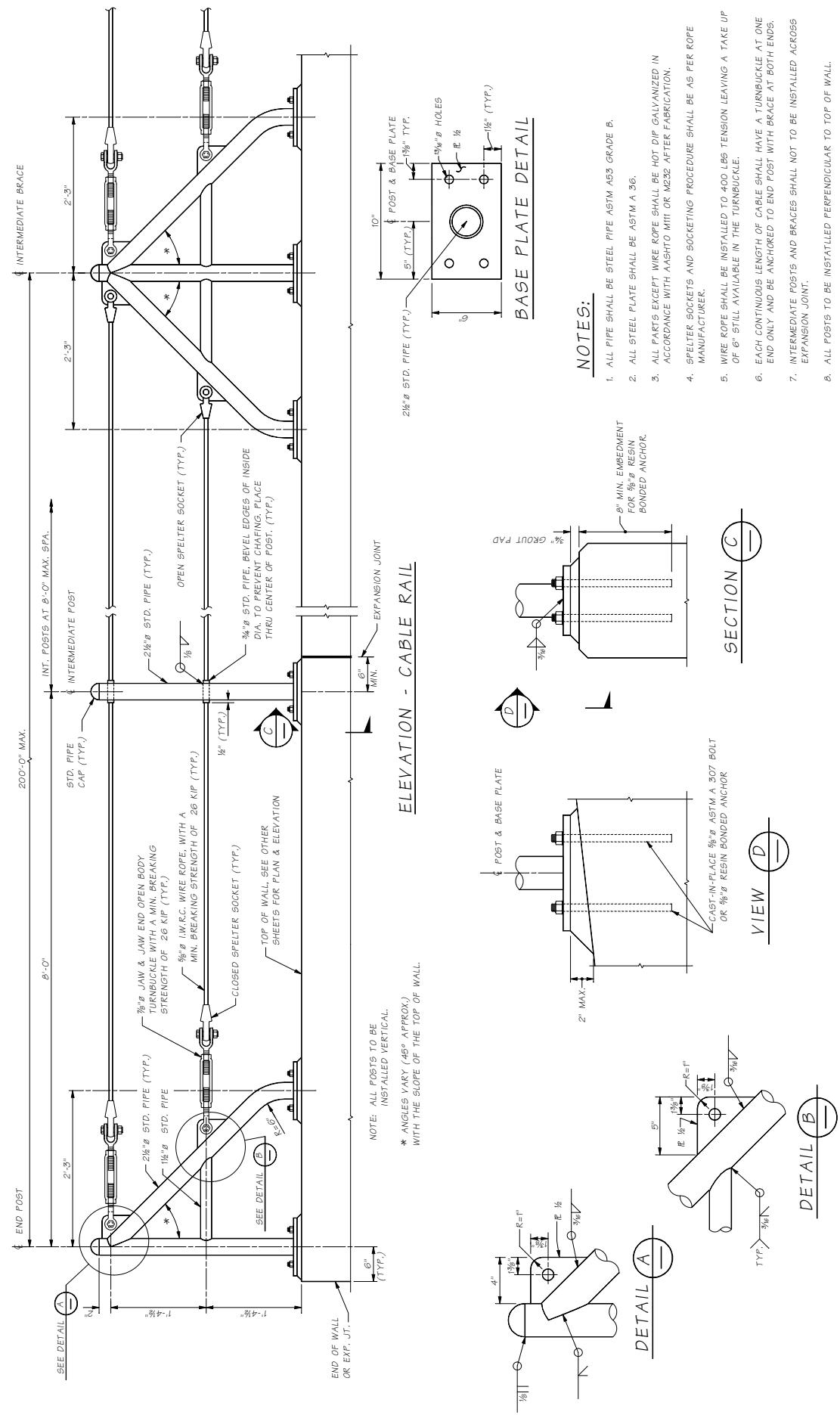


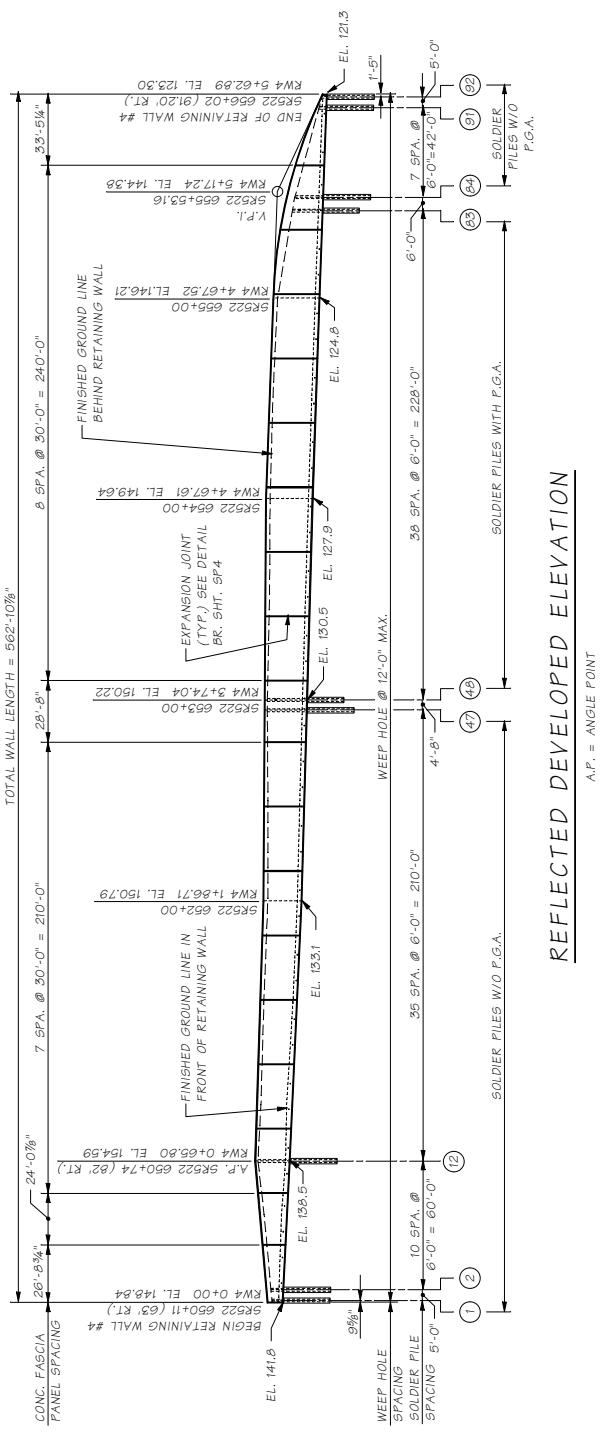


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**Cable Fence - Top Mount**  
**Figure 8-A-7**





REFLECTED DEVELOPED ELEVATION

A.P. = ANGLE POINT

GENERAL NOTES

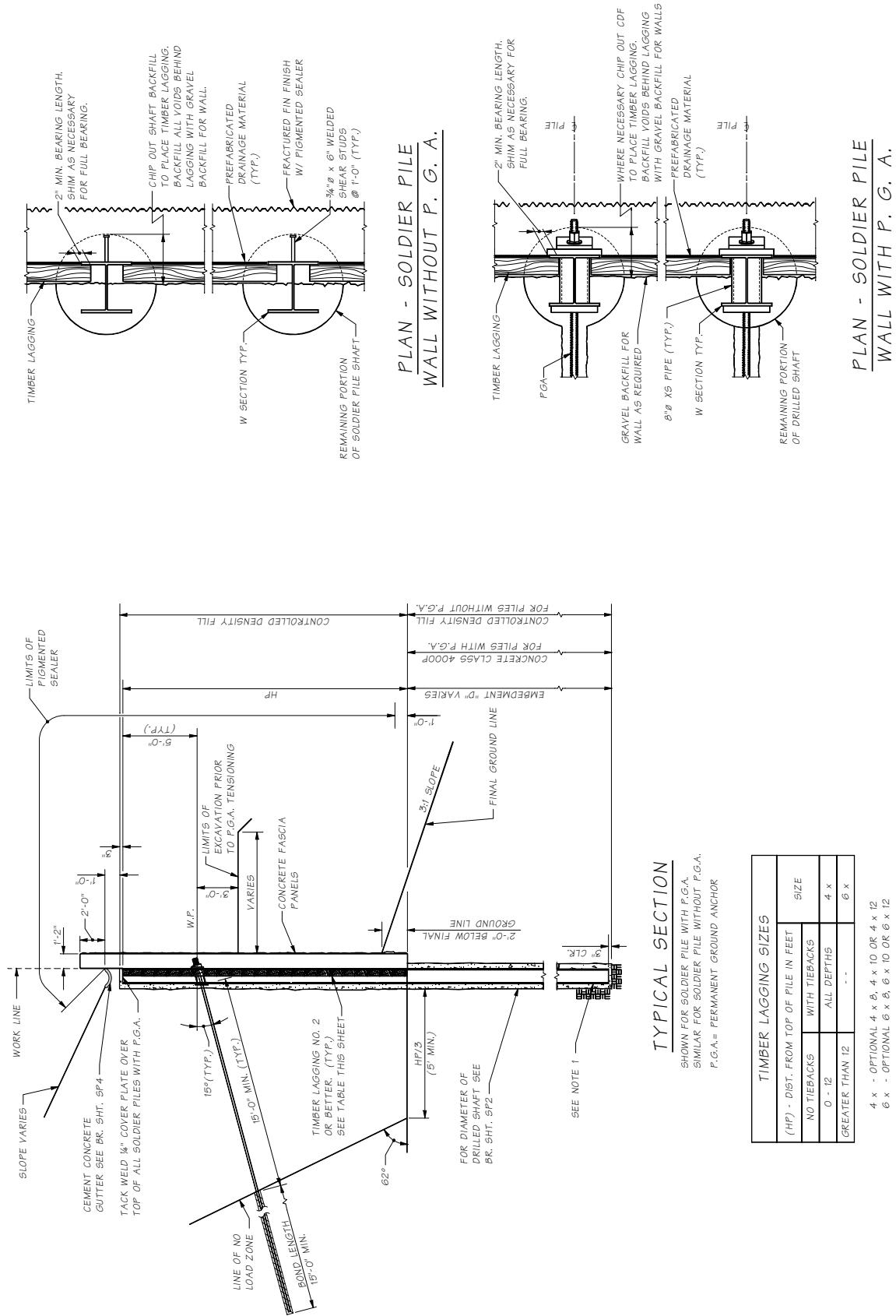
- ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION-ENGLISH, DATED 2004, AND AMENDMENTS.
- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SIXTEENTH EDITION - 1996 AND, IN TERMS, ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS FOR LOAD FACTOR DESIGN.
- SOLDIER PILE SHAFTS WITH PERMANENT GROUND ANCHORS SHALL BE FILLED WITH CONCRETE CLASS 4000 BELOW THE TIMBER LAGGING. THE REMAINING PORTION OF THE SOLDIER PILE SHAFTS, INCLUDING THE FULL HEIGHT OF SOLDIER PILE SHAFTS WITHOUT PERMANENT GROUND ANCHORS, SHALL BE FILLED WITH CONTROLLED DENSITY FILL (CDF).
- UNLESS OTHERWISE SHOWN IN THE PLANS, THE CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE 1 1/8".
- SOLDIER PILES, BARS, AND PLATES FOR THE SOLDIER PILE ASSEMBLY STIFFENERS AND TIE PLATES SHALL CONFORM TO ASTM A36. THE 3/8" EXTRAS STRONG PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A53 GR. B OR A501.
- ALL WELDING SHALL BE DONE TO MINIMIZE DISTORTION. THE WELDING SEQUENCES AND PROCEDURES TO BE USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF WELDING.
- ALL DIMENSIONS SHOWN WITH DECIMALS ARE IN METERS AND ALL DIMENSIONS SHOWN WITHOUT DECIMALS ARE IN MILLIMETERS.
- Ø* ALL DIMENSIONS SHOWN WITH DECIMALS ARE IN METERS AND ALL DIMENSIONS SHOWN WITHOUT DECIMALS ARE IN MILLIMETERS.

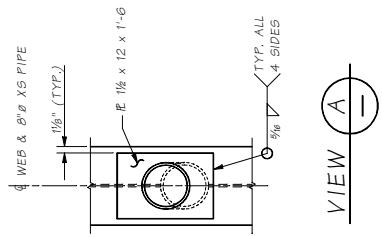
SOLDIER PILE/TIEBACK

**Soldier Pile/Tieback Wall Elevation**  
**Figure 8-A-8**

## Soldier Pile/Tieback Wall Details 1 of 2

Figure 8-A-9

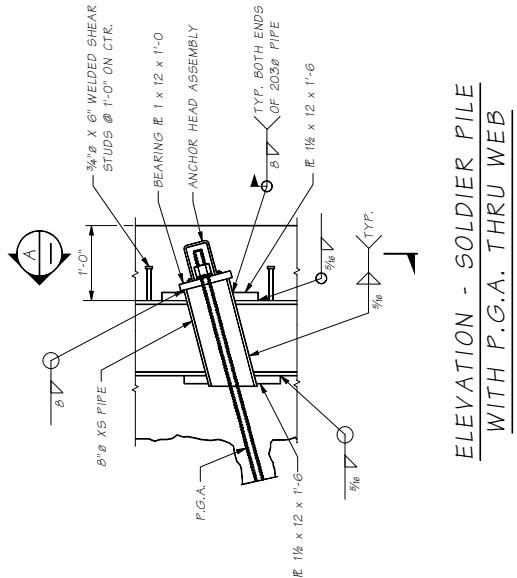


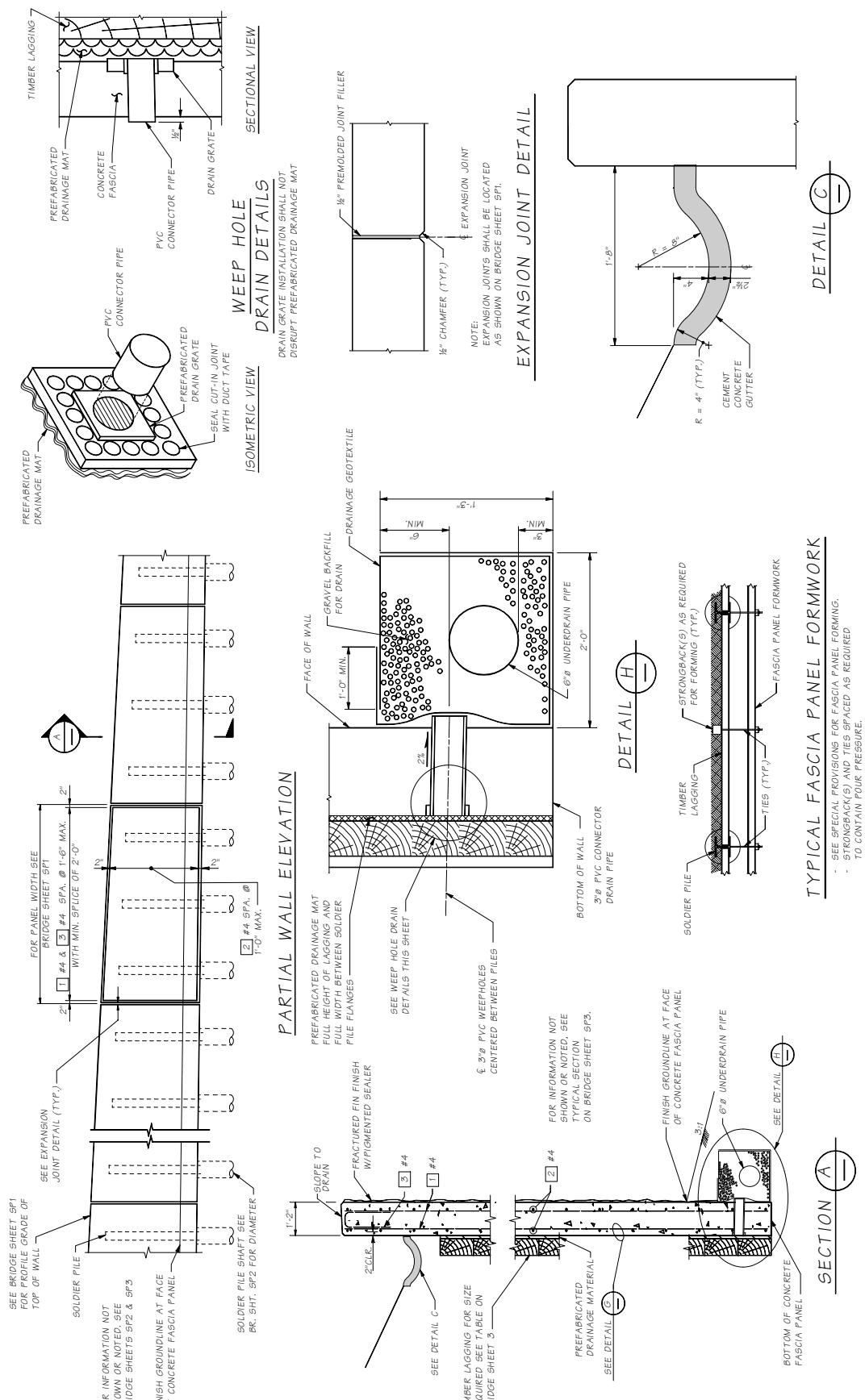


## Soldier Pile/Tieback Wall Details 2 of 2

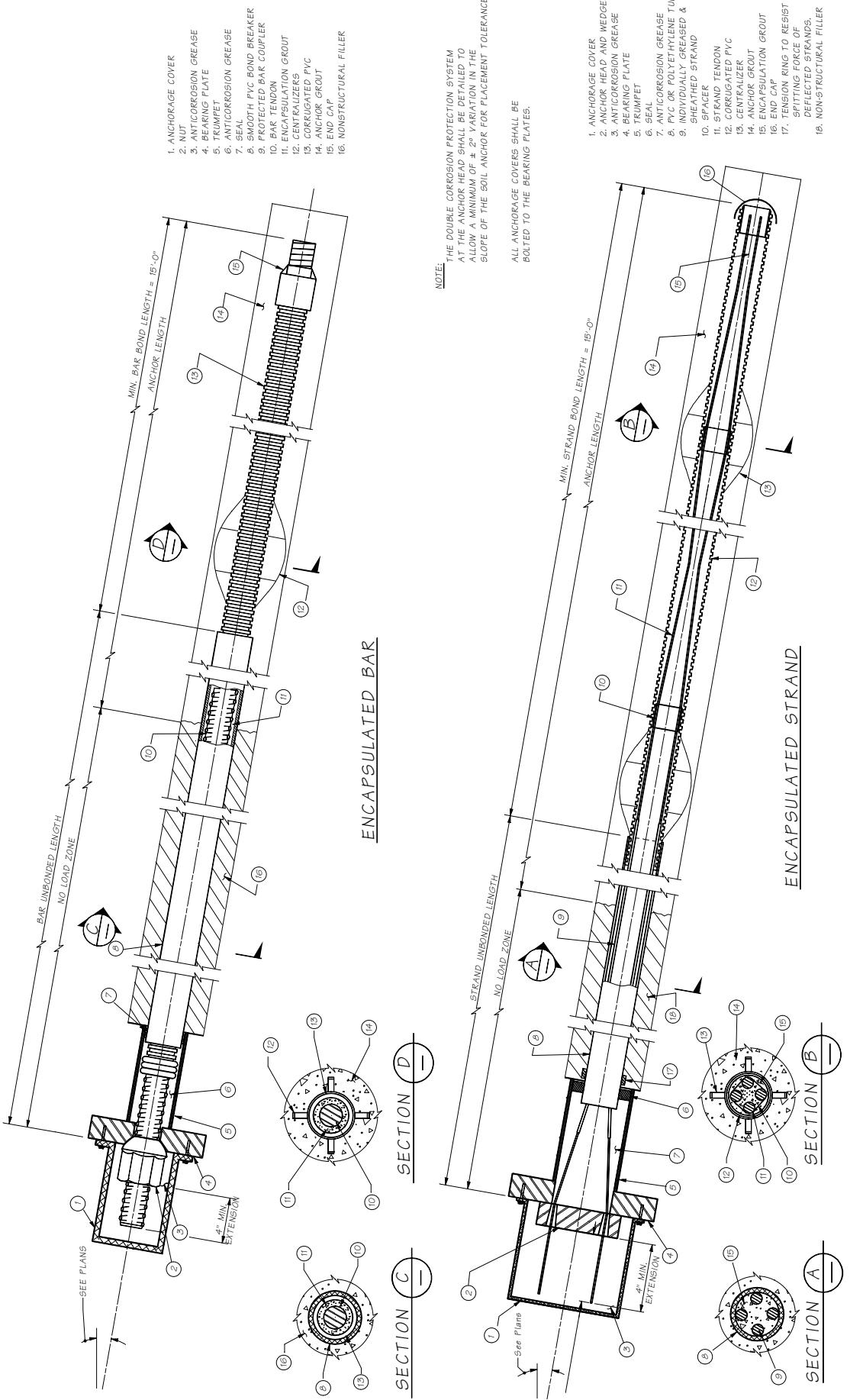
*Figure 8-A-10*

*Figure 8-A-10*





**Soldier Pile/Tieback Wall Fascia Panel Details**  
Figure 8-A-11



**Soldier Pile/Tieback Wall Permanent Ground Anchor Details**

Figure 8-A-12

Wall Supplier	System Name	System Description	ASD/LFD or LRFD?	Height, or Other Limitations	Year Initially Approved	Last Approved Update
The Reinforced Earth Co. 8614 Westwood Center Drive Suite 1100 Vienna, VA 22182 (703) 821-1175	Reinforced Earth Wall	Precast concrete 5'x5' facing panels and steel strip soil reinforcement	ASD/LFD	33 ft	1987	Approved 10/30/04 (submitted 3/29/04)
L. B. Foster Company Foster Geotechnical 1660 Hotel Circle North, Suite 304 San Diego, CA 92108-2803 (619) 688-2400	Retained Earth Wall	Precast concrete 5'x5' facing panels and steel bar mat soil reinforcement	ASD/LFD	33 ft	Unknown	Approved 10/30/04 (submitted 12/11/03)
SSL, LLC 4740 Scotts Valley Drive, Suite E Scotts Valley, CA 95066 (831) 430-9300	MSE Plus Wall	Precast concrete 5'x5' facing panels and steel welded wire strip soil reinforcement	ASD/LFD	33 ft	1999	Approved 10/30/04 (submitted 9/16/03)
Tensar Earth Technologies, Inc. 5883 Glenridge Drive, Suite 200 Atlanta, GA 30328 (404) 250-1290	ARES Wall	Precast concrete 5'x5' facing panels and Tensar geogrid soil reinforcement	ASD/LFD	33 ft	1998	Approved 10/30/04 (submitted 8/6/04)
Hilfiker Retaining Walls 3900 Broadway P.O. Box 2012 Eureka, CA 95503-5707 (707) 443-5093	Eureka Reinforced Soil Wall	Precast concrete 5'x5' facing panels and welded wire mat soil reinforcement	ASD/LFD	33 ft	Unknown	
Hilfiker Retaining Walls 3900 Broadway P.O. Box 2012 Eureka, CA 95503-5707 (707) 443-5093	Welded Wire Retaining Wall	Welded wire facing that is continuous with welded wire soil reinforcement	ASD/LFD	33 ft	Unknown	Approved 10/30/04 (submitted 9/15/03)
Keystone Retaining Wall Systems, Inc. 4444 West 78th Street Minneapolis, MN 55435 (952) 897-1040	KeySystem I Wall	Modular dry cast concrete block facing with steel welded wire ladder strip soil reinforcement	ASD/LFD	33 ft	2001	Approved 10/30/04 (submitted 3/31/04)

**Pre-approved Proprietary Wall Systems**  
*Figure 8-A-13*

Wall Supplier	System Name	System Description	ASD/LFD or LRFD?	Height, or Other Limitations	Year Initially Approved	Last Approved Update
Tensar Earth Technologies, Inc. 5883 Glenridge Drive, Suite 200 Atlanta, GA 30328 (404) 250-1290	MESA Wall	Modular dry cast concrete block facing with Tensar geogrid soil reinforcement	ASD/LFD	33 ft	2000	Approved 10/30/04 (submitted 4/19/04 and 9/22/04)
Nelson Wall 12356 Northup Way, Suite 109 Bellevue, WA 98005 (425) 861-8292	Nelson Wall	Precast concrete gravity wall (similar to Standard Plan Concrete cantilever wall)	ASD/LFD	28 ft	1995	Approved 10/30/04 (submitted 9/12/03)
The Neel Company	T-Wall	Precast concrete modular wall	ASD/LFD	25 ft	1994	Approved 11/10/04 (submitted 11/05/04)

Pre-approved Proprietary Wall Systems (Continued)  
*Figure 8-A-13*